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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,466	02/05/2002	Sally Elaine Saffer	200302250-1	6758

7590 03/29/2011
IP Administration
Legal Dept., M/S 35
Hewlett-Packard Company
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Fort Collins, CO 80527-2400

EXAMINER

ORTIZ, BELIX M

ART UNIT	PAPER NUMBER
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2164

MAIL DATE	DELIVERY MODE
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03/29/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/068,466	Applicant(s) SAFFER ET AL.	
	Examiner BELIX M. ORTIZ	Art Unit 2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/20/2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 60,61 and 69-111 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 91-106 is/are allowed.
- 6) ☒ Claim(s) 60-61, 69-90, 107-111 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. In response to communication files on December 20, 2010, Claims 1-59 and 62-68 are cancelled and 74-111 are added by applicant's request. Therefore, claims 60-61 and 69-111 are presently pending in the application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 12/20/2010 has been entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 86, 103, and 107-109 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 86 and 103 the phrase “can be” render the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

6. The claims 107-109 limitations are being treated under 35 U.S.C 112, sixth paragraph, which states that a claim limitation expressed in means-plus-function language shall be construed to cover the corresponding structure...described in the specification and equivalents thereof. If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. See MPEP 2181. The specification does not set forth what is meant by the " means for inserting new data into an insert table; means for periodically transferring data from the insert table to a history table; means for applying a database query to both the history table and the insert table; and means for throttling transactions of different types independently to achieve a desired level of service; means for batching new data; and means for inserting the batched new data into the insert table with a single database access; means for creating a new partition in a composite-partitioned history table; means for creating a partitioned temporary table; means for filling the temporary table with data from an insert table; means for exchanging the temporary table with the new partition; means for receiving a database query and applying said query to both the history table and the insert table; and means for throttling transactions of different types independently to achieve a desired level of service" language and one of ordinary skill in the art would not be able identify the structure, material, or acts from that description.

Therefore, the claim fails to comply with the 35 USC 112, second paragraph.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 69-71, 74-90, and 110-111 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material per se. See MPEP 2106.01.

Claims 69 and 110 are rejected because computer readable storage medium as described in the specification, see paragraph 126 “Those of ordinary skill in the art should recognize that methods involved in an operational data store may be embodied in a computer program product that includes a computer usable medium. For example, such a computer usable medium can include a readable memory device, such as a solid state memory device, a hard drive device, a CD-ROM, a DVD-ROM, or a computer diskette, having stored computer-readable program code segments. **The computer readable medium can also include a communications or transmission medium, such as a bus or a communications link, either optical, wired, or wireless, carrying program code segments as digital or analog data signals**”,.

The specification discloses that "computer readable media" can be elements that are energy. Energy is not one of the four categories of invention and therefore these claims are not statutory. Energy is not a series of steps or acts and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not combination of substances and therefore not a composition of matter.

Claims 70, 74, 85, 107, and 109 are rejected because they are a system or an operational data store, the claim only recites elements that can be taken to be software. The apparatus if intended to be a computer apparatus, should explicitly recite physical hardware components such as "processor, display, memory ..etc..".

Claims 71, 75-84, 86-90, and 111 are also rejected as being dependent on claims 70, 74, 85, and 110.

To expedite a complete examination of the instant application the claims rejected under U.S.C. 101(nonstatutory) above are further rejected as set forth below in anticipation of application amending these claims to place them within the four categories on invention.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 60-61, and 69, are rejected under 35 U.S.C. 103(a) (Eff. Filing date of application 2/5/2002) as being unpatentable over Kawai (U.S. patent 5,717,924) (Eff. Filing date of application 7/7/1995) in view of Weinberg et al. (US 2002/0087510) (Eff. filing date of application 9/20/2001) (Hereinafter Weinberg).

As to claim 60, Kawai teaches a method for operating an operational data store (see abstract; column 1, lines 8-10; and column 3, lines 29-33), comprising:

creating a partitioned temporary table (see figure 10B, character 332);

filling the temporary table with data from an insert table (see figure 10B, character 336);

exchanging the temporary table with the new partition (see figure 10B, character 348); and

receiving a query and applying the query to both the history table and the insert table (see column 2, lines 19-21 and column 4, lines 29-42).

Kawai does not teach creating a new partition in a composite-partitioned history table.

Weinberg teaches method and apparatus for structuring, maintaining, and using families of data (see abstract), in which he teaches creating a new partition in a composite-partitioned history table (see fig. 5 and p. 40-51-55 119, 125, and 127).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kawai by the teaching of Weinberg because creating a new partition in a composite-partitioned history table, would enable a operational data store because, “[51] Each family of data represents a group of records in a database table that are related by one or more common field having the same value, and that may also have additional fields of common information (e.g., images, logos paragraphs of descriptive text, bullets of specifications and other data). Families are used to partition the records in a database. A partition is the division of a group of records into one or more subgroups, each of which is defined by a set of records from that group that have a fixed set of values for one or more field values. The partition is specified by the set of fields whose values or value combinations will define the subgroups. Each field can include category specific attributes. The main table of records that is to be divided into partitions is divided according to a partitioning table”.

As to claim 61, Kawai as modified teaches the method further comprising:
creating a new partition in the insert table based on values from an existing partition (see Kawai figure 7); and
dropping the existing partition (see Kawai figure 10B, character 340).

As to claim 69, Kawai teaches a computer program product for operating an operational data store (see abstract; column 1, lines 8-10; and column 3, lines 29-33), the computer program product comprising a computer usable medium having computer readable code thereon (see abstract; figure 1; and column 1, lines 6-8), including program code which:

- creates a partitioned temporary table (see figure 10B, character 332);
- fills the temporary table with data from an insert table (see figure 10B, character 336);
- exchanges the temporary table with the new partition (see figure 10B, character 348); and
- receives queries and applies the queries to both the history table and the insert table (see column 2, lines 19-21 and column 4, lines 29-42).

Kawai does not teach creates a new partition in a composite-partitioned history table.

Weinberg teaches creates a new partition in a composite-partitioned history table (see fig. 5 and p. 40-51-55 119, 125, and 127) as same motivation of claim 60, above.

9. Claims 70-73 are rejected under 35 U.S.C. 103(a) (Eff. Filing date of application 2/5/2002) as being unpatentable over Battas et al. (U.S. patent 6,757,689) (Eff. Filing date of application 9/7/2001) in view of Rassmussen et al. (U.S. patent 6,317,803) (Eff. Filing date of application 9/27/1996) (Hereinafter Rassmussen).

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As to claim 70, Battas et al. teaches a system for producing a desired level of service in a mixed workload environment (see column 20, lines 31-34), comprising:

a high-speed insert operational data store (ODS) (see column 15, lines 34-37);
and

an aggregator for accumulating transactions into batches and inserting each of the batches into the ODS using a single database transaction per batch (see column 15, lines 41-46).

Battas et al. does not teach a throttler for throttling selected transactions to the ODS.

Rasmussen teaches high-throughput interconnect having pipelined and non pipelined bus transaction modes (see abstract), in which he teaches a throttler for throttling selected transactions to the ODS (see column 22, lines 14-29); and

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kawai by the teaching of Rasmussen because a throttler for throttling selected transactions to the ODS, would enable a operational data store because, “The master must always be able to accept read data for all high priority queued transactions that can complete within 4 clocks. When a high priority read request requires more than 4 clocks (multiple blocks) to complete, the master can throttle the transaction (and effectively stall subsequent high priority read data) with IRDY# after each data block transfers (this is discussed in the next section). RBF# does not apply to high priority read data, and IRDY# cannot be used to initially stall the return of high priority read data”, (see column 22, lines 14-29).

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As to claim 71, Battas et al. as modified teaches wherein the mixed workload environment includes at least two of archiving, OLTP queries, DSS queries, high-speed inserts, backup processes and extract/translate/load transactions (see Battas et al. figure 8; column 2, lines 50-54; and column 20, lines 28-33).

As to claim 72, Battas et al. teaches a method for producing a desired level of service in a mixed workload environment (see column 20, lines 31-34), comprising:

insert transactions into an operational data store (ODS) at a high-speed (see column 15, lines 34-37);

accumulating transactions into batches (see column 15, lines 41-46); and

inserting each of the batches into the ODS using a single database transaction per batch (see column 15, lines 41-46).

Rasmussen teaches throttling selected transactions to the ODS (see column 22, lines 14-29) as same motivation of claim 70, above.

As to claim 73, Battas et al. as modified teaches wherein the mixed workload environment includes at least two of archiving, OLTP queries, DSS queries, high-speed inserts, backup processes and extract/translate/load transactions (see Battas et al. figure 8; column 2, lines 50-54; and column 20, lines 28-33).

Allowable Subject Matter

10. Claims 91-106 are allowed.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BELIX M. ORTIZ whose telephone number is (571)272-4081. The examiner can normally be reached on Monday-Friday 9am-5pm.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Belix M Ortiz
Patent Examiner
Art Unit 2164
March 26, 2011

/Belix M. Ortiz/
Examiner, Art Unit 2164